



PATENT
Docket No.: M4065.0321/P321-A

#29
Reply Brief
5/18/04

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

In re Patent Application of:
Pai-Hung Pan, et al.

Application No.: 09/577,835

Filed: May 25, 2000

For: PASSIVATION OF SIDEWALLS
OF A WORD LINE STACK

Examiner: C. Nguyen

Group Art Unit: 2811

Confirmation No. 6233

Assistant Commissioner for Patents
Washington, D.C. 20231

APPELLANTS' REPLY BRIEF

Sir:

This Reply Brief is pursuant to 37 C.F.R. 1.193(b)(1) in the above-identified U.S. patent application and is responsive to the Examiner's Answer mailed March 9, 2004.

I. **Related Appeals and Interferences**

As noted in the main brief, page 2, there are no appeals or interferences known to Appellant, his legal representative, or the assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

II. Argument

A. THE SUBJECT MATTER DEFINED IN CLAIMS 25 – 27 AND 30 IS PATENTABLE OVER GARDNER IN VIEW OF MOGAMI.

The subject matter defined by claims 25 – 27 and 30 is patentable over Gardner in view of Mogami because there is no motivation to combine the teachings of the references to extend the nitride portion of the composite spacer so that it extends “to the top of” the continuously vertical sidewalls of the gate electrode stack. See Appeal Brief at § VIII(A)(i), pages 7-8. The Examiner’s Answer asserts that the required motivation for extending the nitride portion of Gardner’s electrode so that it extends “to the top of” the continuously vertical sidewalls of the gate electrode stack is that Mogami discloses doing so would prevent short circuits from forming between the gate electrode stack and a source/drain region. Examiner’s Answer, § 11, page 5.

However, as addressed in appellant’s first argument in the main brief, the reasoning applied in the final rejection (and repeated in the Examiner’s Answer) for combining Mogami with Gardner appears to be based upon impermissible hindsight. Without using the present application as a guide, it is respectfully submitted that one of ordinary skill would not have been motivated to make the modifications to the Gardner electrode in the manner suggested in the final rejection.

As noted in the Examiner’s Answer, the test for determining obviousness “is what the combined teachings of the references would have suggested to those of ordinary skill in the art.” Examiner’s Answer, page 6. The electrode disclosed by Gardner is already resistant to short circuits between the electrode stack and a source/drain region. See Appeal Brief, pages 7-8 (quoting Gardner at column 7, lines 33-41). Accordingly, it is respectfully submitted that there would be no need to modify the electrode stack of Gardner as suggested in the final rejection for the purpose of

preventing short circuits from forming between the gate electrode stack and a source/drain region. Although the Examiner's Answer alleges that one of ordinary skill in the art familiar with both Gardner and Mogami could construct the claimed invention, the Examiner's Answer fails to address appellant's argument that there would be no motivation for such a modification.

III. Conclusion

In conclusion, Appellant respectfully submits that the Final Rejection of claims 25 – 27 and 30 is in error for at least the reasons given in the Appeal Brief and for at least the further reasons stated above and should, therefore, be reversed.

Dated: May 10, 2004

Respectfully submitted,

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